

REMARKS

Applicants have amended claims 9-11 and added new claim 12. Thus, Claims 9-12 are pending in the subject application. Applicants respectfully submit that the present response places the present application in condition for allowance or in better condition for purposes of appeal.

Non-Statutory Obviousness-type Double Patenting

The Examiner provisionally rejected claim 9 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claim 10 of co-pending U.S. patent application serial no. 10/065,809 in view of U.S. Patent No. 6,721,273 (Lyon).

Applicants have timely filed a terminal disclaimer in the present application submitted herewith. Thus, Applicants respectfully submit that the non-statutory obviousness-type double patenting rejection of claim 9 has been overcome.

Claim Rejections - 35 U.S.C. 103

The Examiner has rejected claims 9-11 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,980,513 (Novick) in view of U.S. Patent No. 6,721,273 (Lyon).

Applicants' claimed invention includes a single queue scheduling mechanism 10 which comprises a single queue scheduler 20 and several queue devices 12, 14, 16 and 18 which are associated with priority ranks P_0 , P_1 , P_2 and P_3 (see, for example, FIG. 1 and paragraphs [0019]-[0029]). The priority ranks P_0 , P_1 , P_2 and P_3 represent all of the priority ranks, that is, from the highest of the high priority ranks to the lowest of the low priority ranks and any priority ranks that are in between these two extreme priority ranks. All of these priority ranks P_0 , P_1 , P_2 and P_3

are associated with the single queue scheduling mechanism 10 and, thus, the single queue scheduler 20. Applicants' claimed single queue scheduler 20 reads, at each packet cycle, a data packet in one of the several queue devices 12, 14, 16, 18 determined by a normal priority preemption algorithm or the same single queue scheduler 20 reads a data packet based on the priority rank provided by credit device 28. In Applicants' claimed invention, regardless of how the priority rank is selected, it is the same single queue scheduler 20 that reads the determined data packet.

Applicants respectfully submit that the combination of Novick and Lyon do not teach or suggest Applicants' independent claim 9, as amended, or claims dependent thereupon. Novick discloses two queue schedulers (i.e. high priority scheduler 24 and low priority scheduler 34) associated with "a single service interval timer/counter 40" (queue scheduling mechanism) (see column 3, lines 38-39) with neither one of the two queue schedulers associated with all of the high and low priority ranks that are associated with the single service interval timer/counter 40. Rather, Novick's high priority scheduler 24 is associated only with high priority ranks (i.e. MCR list 36) and low priority scheduler 34 is associated only with low priority ranks (i.e. BE service list 38) (see Fig. 1 and column 4, lines 19-51). Novick is silent on any one of the queue schedulers 24 or 34 being associated with both the MCR list 36 and the BE service list 38.

Novick's queue scheduling mechanism services entirely high priority queues first and then services low priority queues after there are no more high priority queues to serve. Novick provides no bandwidth to lower priority queues when high priority queues are being serviced which is inapposite to Applicants' claimed invention which services both high and low priority queues since a minimum bandwidth for low priority queues is provided. Thus, Applicants' claimed invention reduces traffic congestion in the data packet transmission system since low priority queues are serviced at a minimum bandwidth.

Applicants respectfully disagree with the Examiner's reading of the Novick reference onto Applicant's claim 9. Referring to the present Final Office Action, page 5, the Examiner states that Novick discloses "... a queue scheduler (**scheduler 34**) for reading ... a data packet ... determined by a normal priority preemption algorithm (**best effort for low priority multiplexer 12**)" and "... (a) receiving from a credit device (**MCR list 36**) ... at each packet cycle a value N (MCRR) defining the priority rank to be considered by **said** queue scheduler ..." (emphasis added). The Examiner identified Novick's low priority scheduler 34 as the "a queue scheduler" so "**said** queue scheduler" also refers to Novick's **low** priority scheduler 34 based on proper antecedent basis for claim structure. However, Applicants believe that the Examiner's characterization of the MCR list 36 of Novick defining the priority rank to be considered by "**said** queue scheduler" (i.e. low priority scheduler 34) is not correct. Novick does not associate MCR list 36 with low priority scheduler 34 as the Examiner alleges, rather, Novick states that high priority scheduler 24 is associated with MCR list 36 and that low priority scheduler 34 is associated with Best Effort list 38 (see column 3, lines 36-37). As stated above, Novick is silent on any one of the queue schedulers 24 or 34 being associated with both the MCR list 36 and the BE service list 38.

Applicants respectfully submit that Lyon fails to remedy the deficiencies in Novick. Lyon discloses a scheduler 50 that uses only priority scheduling (see Lyon: FIG. 6; column 6, lines 30-31 and column 7, lines 43-48). Lyon does not disclose a scheduler that is associated with both a normal priority preemption algorithm and a credit device.

Therefore, Applicants believe that the rejection of the claims under 35 U.S.C. 103(a) has been overcome and it is respectfully requested that the pending claims be passed to issuance in view of the amendments and remarks.

CONCLUSION

In light of the foregoing amendments and remarks, all of the claims now presented are believed to be in condition for allowance, and Applicants respectfully request that the outstanding objections be withdrawn and this application be passed to issue at an early date.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application. Applicants request a one month extension of time by virtue of the present response. Please charge Applicants' deposit account, 09-0456, a fee of \$120 for a one month extension of time which is due by virtue of this response, and for any additional fee that the PTO determines is due.

Respectfully Submitted,

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